DEPARTMENT OF THE NAVY

NAVAL AIR SYSTEMS COMMAND
NAVAL AIR SYSTEMS COMMAND HEADQUARTERS
WASHINGTON. DC 20361–0001

IN REPLY REFER TO

NAVAIRINST 4160.1A
AIR-4111
27 Apr 88

NAVAIR INSTRUCTION 4160.1A

From: Commander, Naval Air Systems Command

Subj: NAVY STANDARD TECHNICAL MANUAL IDENTIFICATION NUMBERING SYSTEM

Ref: (a) NAVAIRINST 5600.20B, Policies and responsibilities for the Naval Air Systems Command Technical Manual Program
(b) M0000-00-IDX-000/TMINS, Application Guide and Index for Technical Manual Identification Numbering System (TMINS)

Encl: (1) NAVAIR Technical Manual Identification Numbering System (TMINS)

1. **Purpose.** This instruction provides policy for implementation of the Navy Standard Technical Manual Identification Numbering System (TMINS).

2. **Cancellation.** This instruction supersedes NAVAIR Instruction 4160.1 of 22 July 1980. Since this is a major revision, changes are not indicated.

3. **Policy.** The TMINS will be the only identification and control number authorized for new NAVAIR technical manuals (TM's). Per reference (a), the Naval Air Technical Services Facility (NAVAIRTECHSERVFAC) is the central point for control and assignment of TM numbers. The assignment of TM numbers by activities other than NAVAIRTECHSERVFAC is prohibited. The TMINS number will be printed on all TM's following the requirements of TM preparation specifications approved for use by the Naval Air Systems Command Headquarters (NAVAIRHQ).

4. **Description**

   a. The TMINS provides for assignment to each TM a unique identifying alphanumeric number patterned after the 13 digit stock number (SN), e.g., 0000-LP-000-0000.

   b. The identification aspects of the system are based on the procedures currently used in MIL-STD-780(AS) for identifying TM's by subject or commodity, modified to be in maximum agreement with the Navy Standard Subject Identification Codes (SECNAV Instruction 5210.11C).

   c. The 13 character number serves both as the TM identification number and may be used as a method of requisitioning the publication when the SN is not known.

   d. Besides the unique identifying number, the system provides for adding a suffix under specific conditions. The suffix may be added to the identifying number to provide user-oriented information such as security classification and recognizable nomenclature.

e. The composition and construction of TM identification numbers are described in enclosure (1).

5. Action

a. All NAVAIR activities involved in acquiring and maintaining TM's will obtain TMINS numbers from NAVAIRTECHSERVFAC.

b. The NAVAIR Integrated Logistics Support Policy Branch (AIR-4111) will monitor, review and approve the policy related to the implementation of the TMINS program for NAVAIR.

c. NAVAIRTECHSERVFAC will

(1) develop and provide guidance for TMINS to ensure its efficient and effective implementation;

(2) act as the central cognizant NAVAIR activity responsible for resolving problems associated with operation of the system;

(3) provide liaison and communication for NAVAIRHQ with other SYSCOMS and activities, as necessary, for coordinating TMINS requirements and instructions;

(4) assign TMINS numbers and titles for TM's, TM changes, and related supplements that require entry into the system. TMINS numbers will be constructed utilizing the standard source data elements of reference (b); and

(5) control and issue TMINS numbers and establish and maintain appropriate records of all TMINS and TMINS related change identification number assignments.

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NAVAIR TECHNICAL MANUAL
IDENTIFICATION NUMBERING SYSTEM (TMINS)

DESCRIPTION

1. Introduction. This enclosure provides a description of the TMINS so that users may obtain an understanding of the numbering method used for NAVAIR technical manuals (TM's). The TMINS numbers provide for inherent grouping of TM's by type of equipment, system, and subject. This simplifies location and deriving information from TM lists and libraries, as well as providing some recognizable information from the number itself.

1.1 Scope. The scope of this description shows the TMIN composition but is limited to a few examples. Detailed information is provided in the TMINS Application Guide and Index for Technical Manual Identification Numbering System M0000-IDX-000/TMINS.

2. Description. The TMINS adheres to the standard 30 character automatic data processing data field. The TMINS establishes a standard method for assigning a unique and significant identifier (PI) and a three character suffix indicating security classification information with additional amplifying information to clarify the hardware as required. No two publications or separately bound parts of a publication will ever have the same PI.

NAVAIR STANDARD TM IDENTIFICATION NUMBER

(13 alphanumeric characters)   (up to 17 alphanumeric characters)

PUBLICATION IDENTIFIER (PI)	/	SUFFIX
(always used)		(used as required)

| e.g., A1-H60BA-POM-100 | / | IF APPLICABLE |

a. The first part of the TMIN is the PI. It consists of precisely 13 alphanumeric characters that form the essential root of the number. The PI is always used.

b. The second part of the TMIN is the suffix. It consists of a variable field of up to 17 characters, including the slash, that may be used to convey user oriented information. A suffix is always used for a classified TM or a separately bound, unclassified portion of a classified TM. A suffix may provide such useful information as equipment designation, nomenclature, or model, whether used in a classified or unclassified manual's TMIN.

2.1 <u>Classification.</u> The PI has 13 alphanumeric characters, the same quantity as the stock number (e.g., 0000LP0000000). The PI is all that is required to provide a unique identification for a TM. The PI classifies TM's by subject or commodity (e.g., aircraft, equipment, component, or system). The classifications relate in part to the Navy's standard subject identification code, work unit code (WUC) system breakdown, and aircraft designation.

2.2 <u>Example.</u> A typical example of a TMIN is A1-H60BA-POM-100. The significant elements in the above example are as follows:

A   – Naval Air Systems Command cognizance TM

1   – Aircraft/aviation

H60 – The TM pertains to the Seahawk helicopter

BA   – The serial number used on all documents pertaining to the full scale development model of the helicopter

POM – The TM is a Principles of Operation manual relating to organizational level maintenance requirements

100 – Represents the basic TM, in this case relating to the volume containing air vehicle information

2.3 <u>Composition of the PI Suffix.</u> The PI suffix, when used for classified manuals and separately bound unclassified portions of classified manuals, will be composed of one alphabetic security classification indicator separated by a slash and enclosed within parentheses. For unclassified manuals, the security classification suffix is not used. In addition, the PI suffix may contain amplifying information giving a short identification of the system/equipment/configuration covered in the manual.

3. TMIN PI and Suffix Composition

3.1 The PI has six components and a suffix developed as follows:

```
┌─────────────────────────────────┐        ┌──────────────┐
│   PUBLICATION IDENTIFIER (PI)    │   /    │  SUFFIX ( )  │
└─────────────────────────────────┘        └──────────────┘

┌──────────────────┐   ┌──────────────┐   ┌──────────────────┐   ┌──────────────┐
│ HARDWARE/SUBJECT │   │      TM      │ / │  CLASSIFICATION  │   │  AMPLIFYING  │
│   IDENTIFIER     │   │  IDENTIFIER  │   │  INDICATOR ( )   │   │     INFO     │
└──────────────────┘   └──────────────┘   └──────────────────┘   └──────────────┘
                                                   ▲                      ▲
┌──────────────────┐   ┌──────────────┐    ASSIGNED AND          CONCISE
│   A1-F18AA       │   │   SRM-000    │    USED ONLY IF          IDENTIFYING
└──────────────────┘   └──────────────┘    REQUIRED             INFORMATION
                                                                 IF REQ'D
```
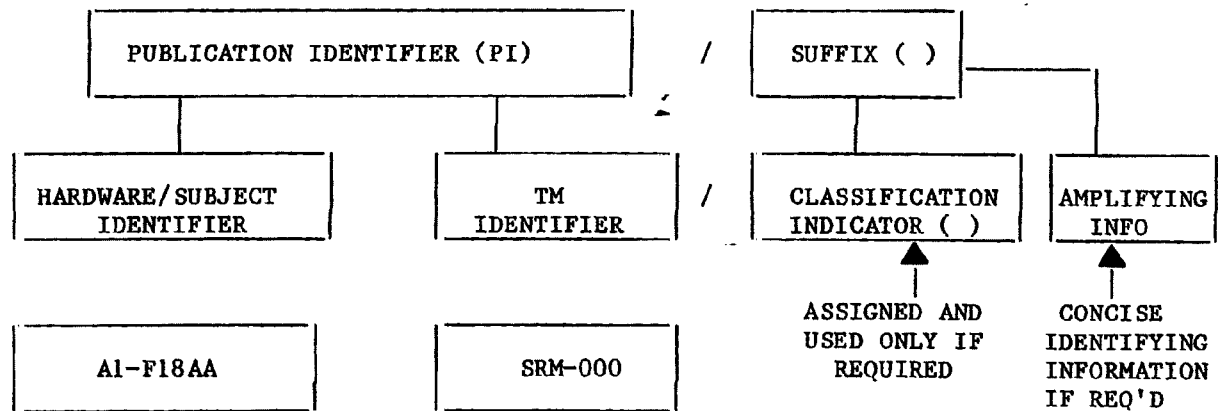
e.g.,   F-18 Structural Repair Manual

(7 ALPHANUMERICS)   (6 ALPHANUMERICS)

```
┌──────────────────┐        ┌──────────────┐
│ HARDWARE/SUBJECT │        │      TM      │
│   IDENTIFIER     │        │  IDENTIFIER  │
└──────────────────┘        └──────────────┘
   / (1)              (1) - (3)              (2) \

┌──────────┐   ┌────────────────────────────┐   ┌──────────────┐
│   COGG   │   │   EQUIPMENT OR STANDARD     │   │   SUBJECT    │
│   COMM   │   │  SUBJECT CLASSIFICATION     │   │   SERIAL     │
└──────────┘   │       CODE (SSCC)          │   └──────────────┘
               └────────────────────────────┘
     ▲                       ▲                        ▲
```

Indicates   Identifies general classi-   Assigned by   Assigned
cognizant   fication of commodity or   SYSCOM for a   during early
system   subject matter   specific   stages of the
                                                     commodity or   development
                                                     subject   or procurement
                                                     identify
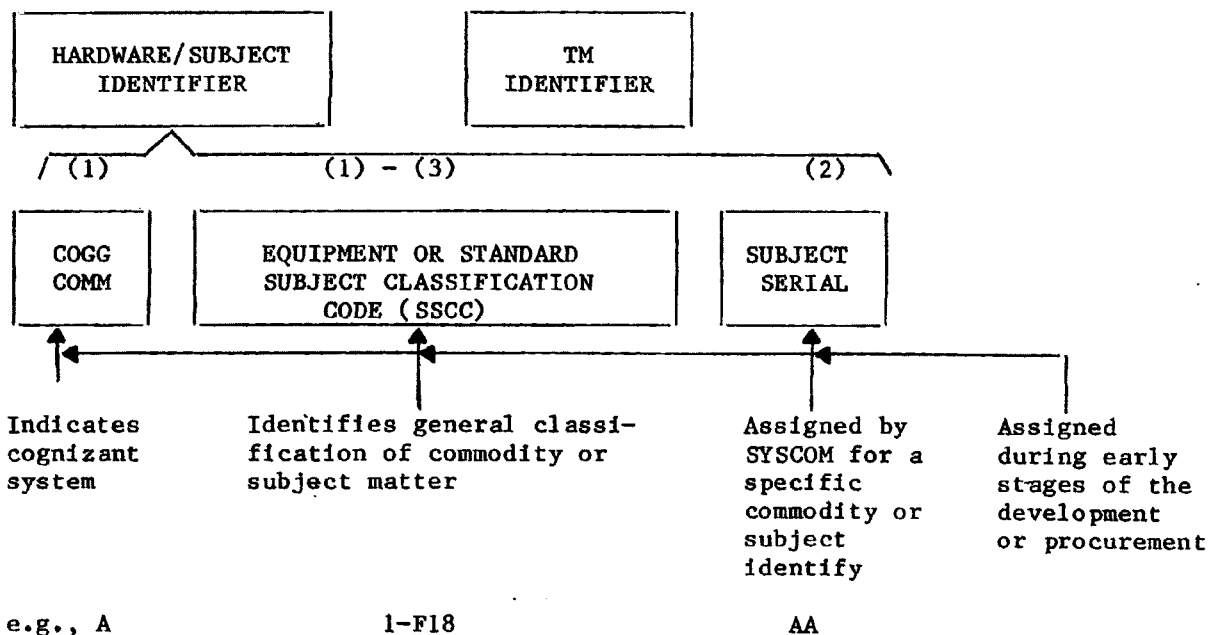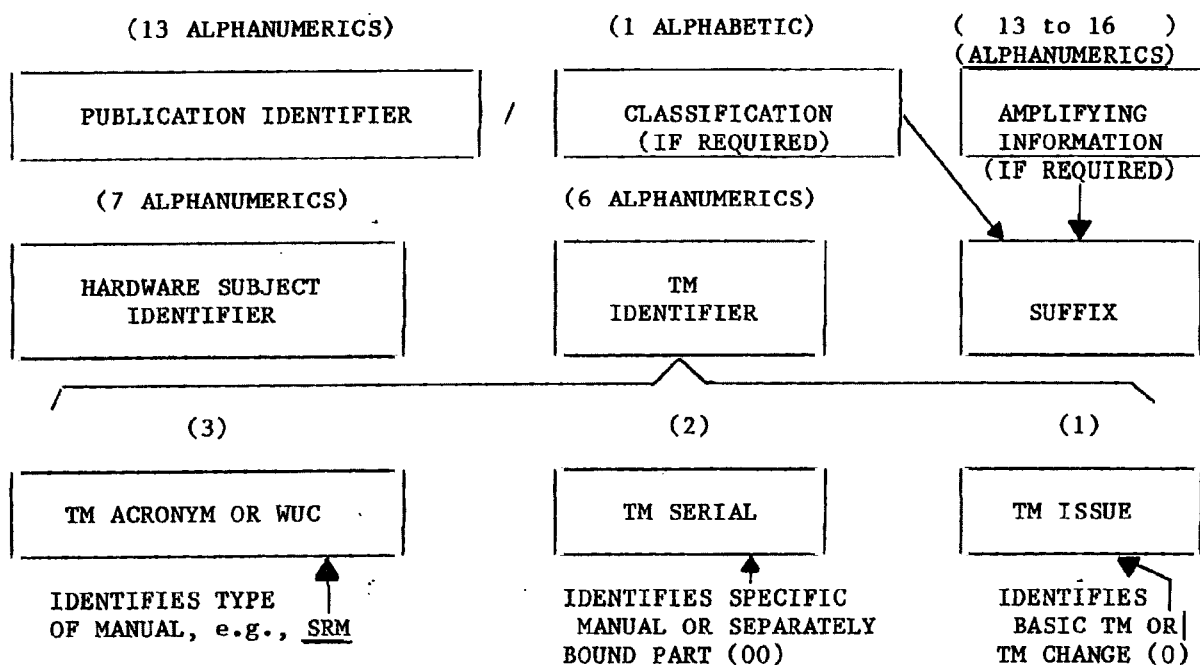
e.g., A   1-F18   AA

3.1.1   Hardware/Subject Identifier. The first 7 characters of the PI
form the hardware/subject identifier. These seven characters identify the
specific item of hardware or subject to which the TM applies. Once assigned,
these numbers never change throughout the life cycle of the equipment and TM
unless there is a modification to the equipment necessitating such change.

3.1.1.1 Hardware/Subject Identifier Composition. As shown in the preceding
illustration, the hardware/subject identifier is composed of three coded groups:
(1) cognizant command, (2) equipment designation or SSCC and, (3) a subject
serial designator (see paragraphs 4.1, 4.2, and 4.3 of this enclosure for
examples of representative codes).

3.1.2   TM Identifier. The next component of the PI is the TM identifier.
When more than one TM pertains to an equipment or system, there will be a unique
TM identifier for each TM even though the hardware/subject identifier will
remain the same. The TM identifier is made up of six characters. These six
characters identify the particular TM by type as a complete set or portion
thereof and by issue category as shown in the following illustration:

TM IDENTIFIER

(13 ALPHANUMERICS)		(1 ALPHABETIC)	(13 to 16) (ALPHANUMERICS)
PUBLICATION IDENTIFIER	/	CLASSIFICATION (IF REQUIRED)	AMPLIFYING INFORMATION (IF REQUIRED)
(7 ALPHANUMERICS)		(6 ALPHANUMERICS)	
HARDWARE SUBJECT IDENTIFIER		TM IDENTIFIER	SUFFIX
(3)		(2)	(1)
TM ACRONYM OR WUC		TM SERIAL	TM ISSUE
IDENTIFIES TYPE OF MANUAL, e.g., SRM		IDENTIFIES SPECIFIC MANUAL OR SEPARATELY BOUND PART (00)	IDENTIFIES BASIC TM OR TM CHANGE (0)

3.1.2.1 <u>TM Acronym or WUC.</u> This is a 3-letter code that indicates the type of TM identified by the TMIN (see paragraph 4.4 of this enclosure for examples of representative acronyms and WUC's).

3.1.2.2 <u>TM Serial.</u> This serial number differentiates individual separately bound TM's (see paragraph 4.5 of this enclosure for a typical application).
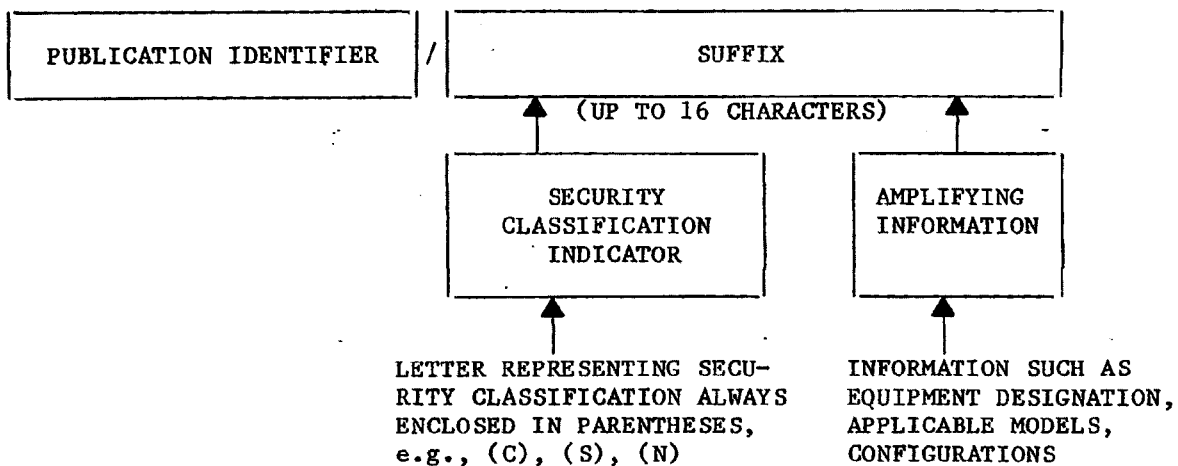
3.1.2.3 <u>TM Issue.</u> When this character is a zero (0), it indicates that the TMIN applies to a basic TM or revision. If the character is a letter, it indicated that the TMIN applies to a change or RAC to the manual (see paragraph 4.5 of this enclosure for a typical application).
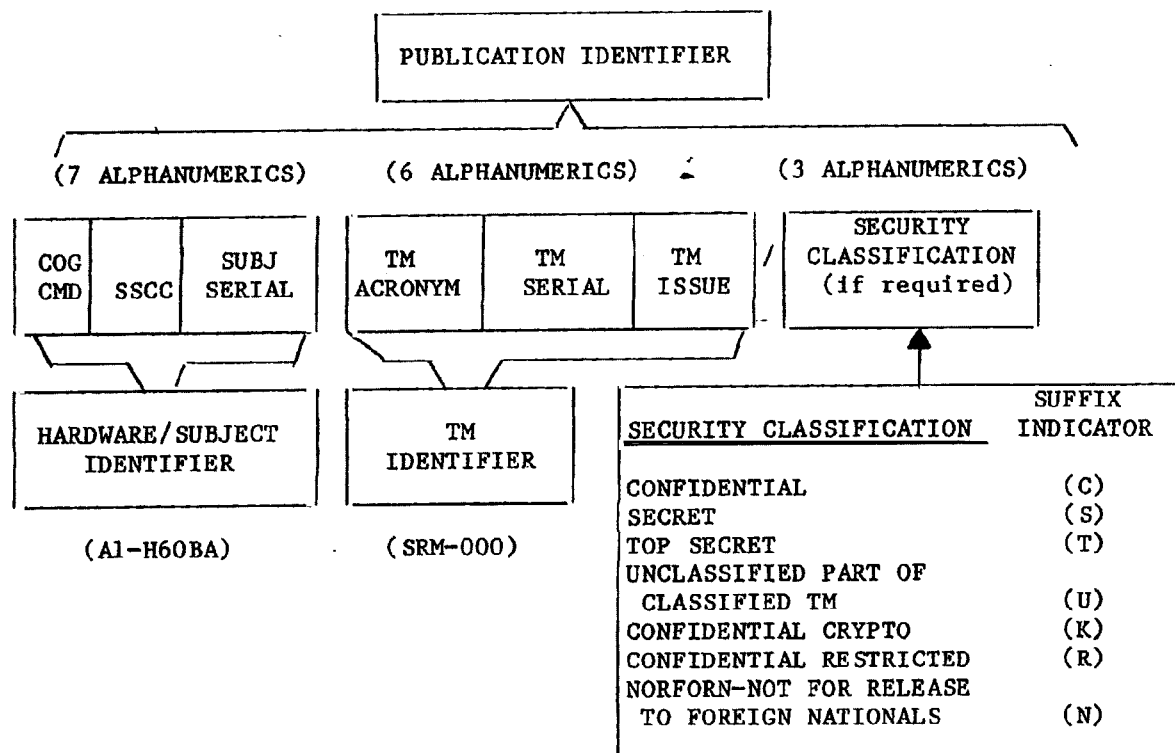
3.1.3 <u>Suffix Composition.</u> Conforming to the standard ADP data field, the suffix is limited to 17 alphanumeric and symbol characters, including the slash and parentheses. Its purpose is amplifying the information contained in the TMINS regarding the system/equipment contained in the publication. The suffix may be composed of two major components: (1) security classification and (2) amplifying information.

3.1.3.1 <u>Suffix Security Classification Indicator.</u> For unclassified manuals, the security classification is not used. The security classification of classified TM's is indicated by a single alphabetic character following the slash required to separate the PI and suffix when a classification suffix is required. The alphabetic character is always enclosed by parentheses, making the total characters used for a security classification to be four. The suffix is always used with classified manuals and all separately bound parts thereof.

3.1.3.2 <u>Amplifying Information.</u> The amplifying information will be as brief as possible in assisting the TMINS in conveying understanding of the system/equipment covered in the publication. Also, the amplifying information may not be used to specify volumes in addition to the method described in paragraph 4.6 of this enclosure. The amplifying information component for classified manuals will have a limit of 13 characters, while the same component for unclassified manuals will have a limit of 16 characters. The slash separating the suffix from the PI counts as one character.

COMPOSITION OF THE PI SUFFIX

```
 ┌─────────────────────────┐   ┌──────────────────────────────────────┐
 │  PUBLICATION IDENTIFIER  │ / │                SUFFIX                  │
 └─────────────────────────┘   └──────────────────────────────────────┘
                                     ▲  (UP TO 16 CHARACTERS)  ▲
                                     │                         │
                              ┌──────────────┐          ┌──────────────┐
                              │   SECURITY    │          │  AMPLIFYING  │
                              │ CLASSIFICATION│          │ INFORMATION  │
                              │   INDICATOR   │          │              │
                              └──────────────┘          └──────────────┘
                                     ▲                         ▲
                                     │                         │
                        LETTER REPRESENTING SECU-    INFORMATION SUCH AS
                        RITY CLASSIFICATION ALWAYS   EQUIPMENT DESIGNATION,
                        ENCLOSED IN PARENTHESES,     APPLICABLE MODELS,
                        e.g., (C), (S), (N)          CONFIGURATIONS
```

5

3.2 __TM Format.__ The preceding paragraphs have described the components and individual coded groups that are included in the NAVAIR TMIN. The following illustrates the entire TMIN as an assemblage of all component fields. Paragraph 4 gives some representative examples of the indicated fields.

```
                    ┌─────────────────────────────┐
                    │   PUBLICATION IDENTIFIER     │
                    └─────────────────────────────┘
                                  /\
    ┌──────────────────────────────────────────────────────────────────┐
  (7 ALPHANUMERICS)      (6 ALPHANUMERICS)          (3 ALPHANUMERICS)
```

| COG CMD | SSCC | SUBJ SERIAL | | TM ACRONYM | TM SERIAL | TM ISSUE | / | SECURITY CLASSIFICATION (if required) |

| HARDWARE/SUBJECT IDENTIFIER | | TM IDENTIFIER |

(A1-H60BA)   (SRM-000)

SECURITY CLASSIFICATION	SUFFIX INDICATOR
CONFIDENTIAL	(C)
SECRET	(S)
TOP SECRET	(T)
UNCLASSIFIED PART OF CLASSIFIED TM	(U)
CONFIDENTIAL CRYPTO	(K)
CONFIDENTIAL RESTRICTED	(R)
NORFORN-NOT FOR RELEASE TO FOREIGN NATIONALS	(N)

3.2.1 __Sample TMINS Number Application.__

A	1	H60	BA	NFM	–	00	0	/	(C)
NAVAIR TM	Aircraft Aviation	Equipment/ Aircraft Designation	Serial	Manual Type		Serial Number	Basic Issue		Suffix Classification Indicator

NFM –	NATOPS Flight Manual
GAI –	General Aircraft Information
POM –	Principles of Operation Manual
TTM –	Testing & Troubleshooting Manual
110 ←	WUC of System Covered
130 ←	Maintenance Procedures
460 ←	
WDM –	Wiring Data Manual
MRC –	Maintenance Requirements Cards

3.2.2 <u>Hyphenation.</u> As demonstrated in the preceding illustration, the assembled TMIN includes hyphenation to make the number easier to read. For use as the identifying number to be printed on a TM cover or page headings, the TMIN will be hyphenated to maximize user recognition. However, hyphenation or other mechanical separation of components or code groups is not necessary for TMIN identification or for automatic data processing manipulation.

4. <u>Representative Examples of TMIN Elements.</u> The examples presented in the following paragraphs illustrate representative codes. These examples were extracted from the TMINS Application Guide and Index for Technical Manual Identification Numbering System, M0000-00-IDX-000/TMINS, that contains the authorized TMIN codes.

4.1 <u>Cognizant Commands.</u> The command code for all NAVAIR cognizant TM's is "A." The codes in use by other commands are as follows:

Naval Facilities Engineering Command . . . . F

Naval Sea Systems Command . . . . S

Naval Supply Systems Command X

Space and Naval Warfare Systems Command . . . . E

4.2 <u>SSCC.</u> Some representative codes that may be assigned by NAVAIRTECH-SERVFAC are:

Sample Categories	Subject	Series
(D) Deck/Hanger Equipment	Optical Landing Aids	D-400
	Catapults	D-200
(E) Electronic Equipment	Altimeters	E-177
	Tacan	E-172
	Countermeasures	E-400
	Radar	E-200
(G) Support Equipment	Servicing Equipment	G-100
(M) Meteorological Equipment	Aerological Instruments	M-400
(N) Instruments	Indicators	N-345
	Stabilizers	N-355
(P) Photographic	Reconnaissance	P-110
(S) Safety/Survival	Emergency Kits	S-010

4.3 <u>Subject Serial</u>. Normally, this is a two character alphabetic or alpha-numeric code that is used to differentiate between items of a given category (for example, different Electronic Countermeasures (ECM) Set configurations); however, once the serial is assigned to an item, it will always pertain to that item. For example:

    a. Equipment

        ECM Set AN/ALQ-126 applicable publications, if renumbered to the TMINS system:

Original Pub Title	Equipment	Contractor/ Configuration	Sample TMINS Numbers
Operators Instr.	AN/ALQ-126	Stewart Warner	AE-172<u>AO</u>-720-100
Service Instr.			AE-172<u>AO</u>-720-200
Overhaul Instr.	AN/ALQ-126A	ITT Fed Labs	AE-172<u>AA</u>-720-300
Illustrated Parts Breakdown			AE-172<u>AA</u>-720-400
Maintenance (O/I/D)	AN/ALQ-126B	Republic Electronic Inc.	AE-172<u>AB</u>-720-000
IPB			AE-172<u>AB</u>-720-400

    b. Airframe TMIN assignment differentiating configuration by change to the serial number alpha-identifier.

Pub Title	Airframe	Configuration	Sample TMINS Numbers
Gen. Acft. Info.	SH-60B	Full Scale Development (FSD)	A1-H60<u>BA</u>-GAI-000
IPB Index	SH 60B	FSD	A1-H60<u>BA</u>-IPB-450
Gen. Acft. Info.	SH-60B	Production	A1-H60<u>BB</u>-GAI-000
IPB Index	SH-60B	Production	A1-H60<u>BB</u>-IPB-450

4.3.1 <u>Serial Number Groups.</u> With this type of number assignment, equipment/ airframes will index in related groups, regardless of when (date/year) the number is assigned.

4.4 <u>TM Acronym.</u> If utilized, this code identifies the type of TM. These acronyms (or abbreviations) are easily recognized alphabetics. The following are some acronyms indicative of the group:

TM Types	Acronym
Plane Captain's Manual	PCM
Quick Engine Change	QEC
Index	IDX
Illustrated Parts Breakdown	IPB
Structural Repair Manual	SRM
Maintenance Manual – Depot Maintenance Level	MMD
Maintenance Manual – Intermediate Maintenance Level	MMI
Wire Repair Manual	WRM
Sequence Control Chart	SCC

4.4.1 <u>WUC as TM Identifier.</u> When acronyms are not utilized, a WUC may be used to provide a readable meaning as to the application of a specific manual, normally three numeric digits which will be used with only the first 2 being significant, the third digit being used to differentiate various subsystems that may fall in the same two digit WUC category. Examples are as follows:

Pub Title	Airframe/ Equipment	WUC Series	Sample TMINS Numbers
Int. Maint w/IPB	AYK-14(V)XN-1	740 (Weapon Control) P-3C/SH-60B/E-2C	AE-610AA-<u>740</u>-000
Int. Maint w/IPB	AYK-14(V)XN-3	740 (Weapon Control) EP-3E	AE-610AA-<u>740</u>-100
Int. Maint w/IPB	AYK-14(V)XN-4	740 (Weapon Control) EA-6B	AE-610AA-<u>740</u>-200

Pub Title	Airframe/ Equipment	WUC	Sample TMINS Numbers
Int. Maint w/IPB	AYK-14(V)XN-5	740 (Weapon Control) F/A-18A	AE-610AA-740-300
Principles of Operation	F/A-18A	740 (Weapon Control, Mission Computer)	A1-F18AA-740-100
Principles of Operation	F/A-18A	742 (Radar)	A1-F18AA-742-100
Principles of Operation	F/A-18A	743 (Laser)	A1-F18AA-743-100

NOTE: Third digit is merely used to differentiate systems falling in the same WUC category.

4.5 TM Serial/TM Issue. The TM serial/TM issue is used to identify different volumes, parts and changes to the TM. When a manual identified by a TMINS number is changed, a change identification number shall appear in parenthesis immediately following the change number and date. Each change to the publication will result in a change to the TMIN change identification. The difference between the basic publication number and the TMIN change identifier is in the last character. This change will be reflected by the substitution of an alpha character in the last place of the TMIN number. The letters "I" and "O" will not be used. The TMINS change identification number will only appear on a changed manual title page. The TMIN change identification number may be utilized when ordering that specific manual change. When the manual is revised, a TMIN change identification number is not required. Examples are as follows:

Example (1): Change number with change identification following the date:

A1-F18AA-463-000
1 January 1976
Change 2 - 15 July 1978 (A1-F18AA-463-00B)

Example (2): Sample of TMINS change sequence numbering:

NPFC Stock Number Last 4 Digits	TMIN ALPHA Change Identification No.	Issue
-0000	A1-F18AA-463-000 *	Basic
-0001	A1-F18AA-463-00A	CHG #1
-0002	A1-F18AA-463-00B	CHG #2
-0003	A1-F18AA-463-00C	RAC #1
-0004	A1-F18AA-463-00D	CHG #3
-0010	A1-F18AA-463-000 *	REV #1
-0011	A1-F18AA-463-00A	RAC #2
-0012	A1-F18AA-463-00B	RAC #3
-0013	A1-F18AA-463-00C	CHG #1
-0014	A1-F18AA-463-00D	RAC #4
-0015	A1-F18AA-463-00E	CHG #2
-0020	A1-F18AA-463-000 *	REV #2
-0021	A1-F18AA-463-00A	CHG #1
-0022	A1-F18AA-463-00B	RAC #5
-0030	A1-F18AA-463-000 *	REV #3

* TMIN change identification not required.

4.6 **Volumization.** Initial planning or occurrences related to data expansion following the inception of a program and production of publications make any of the following volumization sequences acceptable.

000/Vol I	010/Vol I	100/Vol I	200/Vol I
010/Vol II	020/Vol II	110/Vol II	210/Vol II
020/Vol III	030/Vol III	120/Vol III	220/Vol III